

COMMONWEALTH OF MASSACHUSETTS

TRANSPORTATION ENHANCEMENT PROGRAM



PROJECT IMPLEMENTATION GUIDE

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Transportation Enhancement Program

PROJECT IMPLEMENTATION GUIDE

1.0 Introduction

This guide is intended as a tool to assist applicants for Transportation Enhancement Program funding and Regional Planning Agency personnel in better understanding the MassHighway processes which affect an enhancement project once it has been approved by the Secretary of Transportation. Applicants and others can also use the guide during a project's development stage to assure the project's ability to be readily implemented once it has been approved.

Because of the nature of enhancement projects, some project applicants and proponents may be new to the procedures used by MassHighway to implement projects. This unfamiliarity with highway project implementation can lead to delays or project cost overruns. However, careful project planning and development can avoid these problems.

The implementation process for an enhancement project is similar to that of other federally aided highway projects. This does not mean that every project will follow the same path to implementation; the process will vary depending upon the nature or type of project being implemented. It is important for an applicant to remain actively involved with a project after the Secretary of Transportation has approved the proposal. Approval by the Secretary of Transportation signals the beginning of the implementation process, and the applicant must be prepared to take an active role and work closely with the Regional Planning Agency and MassHighway personnel during this phase to assure successful and timely implementation. It is the responsibility of the applicant to assure that the project is implemented in accordance with MassHighway standards and procedures.

Applicants who are unfamiliar with the process and procedures imposed upon federally aided highway projects should consult with their city or town engineer, highway superintendent, or other local official familiar with the required process and procedures. If a community does not have a municipal engineer or highway superintendent, applicants should contact their MassHighway District Projects Development Engineer or State-Aid Engineer. They are experienced in implementing highway projects, and can provide valuable insight and advice to applicants.

This section briefly describes what an applicant should expect from MassHighway upon approval of a project, and further provides information on federal and state requirements for project implementation.

Once a project has received the approval of the Secretary of Transportation, the applicant will receive a notice from MassHighway listing basic implementation requirements

necessary to begin the process. The notice will also list the name and telephone number of a MassHighway contact person.

2.0 Preparing for Implementation

Regional Planning Agencies and the Enhancement Steering Committee judge proposals, in part, on their readiness for implementation. Therefore, it is essential that applicants remain mindful of implementation requirements during the development stage of their project. Properly preparing a project for implementation begins early in the project planning and project development stages, and assures the Regional Planning Agency and the Enhancement Steering Committee that the project has ample public support, the applicant has made a significant commitment to the project, and the project's design efforts comply with all state and federal requirements.

3.0 The Implementation Process

As stated earlier, depending upon the nature of a project and the level and extent of design completed, different projects may follow different paths to implementation. One of the major factors affecting the implementation process is whether MassHighway elects to advertise the project. The decision is made on a case by case basis, solely at the discretion of MassHighway. This decision is based on a variety of factors, some of which are the size, complexity, and cost of a project.

MassHighway reserves the right to advertise any enhancement project or portion of an enhancement project. As MassHighway does not ordinarily advertise design projects, it is possible and often likely the applicant will advertise the design stage and MassHighway will advertise the construction stage of a project. The following outline addresses the two components: 1) the steps for implementing a project where the applicant is to advertise the project, and 2) the steps to implementing a project in which MassHighway elects to advertise the project. Depending upon the needs of a project, applicants may need to follow both of these procedures, therefore it is important to understand these steps to better prepare a project for implementation.

3.1 Implementation Procedures: Advertisement by Applicant

- Step 1.** The applicant receives a letter of approval from the Secretary of Transportation.
- Step 2.** Shortly thereafter, the applicant receives a letter from the Director of the Bureau of Transportation Planning and Development informing the applicant of necessary steps to implement a project. At that point in time, the applicant is instructed to contact the Transportation Enhancement Program Engineer at MassHighway.
- Step 3.** The Transportation Enhancement Program Engineer will inform the applicant that MassHighway has elected to allow the applicant to advertise the project. The Enhancement Program Engineer will serve as Project Manager and notify the applicant about submission of further information. The nature of this information differs depending upon the work category of the project.

Following are some general examples of the types of information that may be required:

- **Projects Involving Property Acquisition:** The applicant submits information about the property, appraisal(s), etc.

At this stage, if a project involves the acquisition of property rights, the applicant will be referred to a MassHighway Community Compliance Officer. The Compliance Officer will guide the applicant through MassHighway's Right of Way process. Depending upon the nature of the acquisition, applicants may be required to complete the Right of Way process before proceeding on to the next implementation steps, or the applicant may be allowed to proceed through the Right of Way process concurrently with other implementation steps. For more information on MassHighway's Right of Way process see Section 5.4.4.

- **Projects Involving Design Services:** The applicant submits a detailed project cost estimate, a detailed Scope of Work including a project design budget and schedule, etc.
- **Projects Involving Construction Services:** For a project in which design is complete and it is ready for construction or implementation, the applicant submits, in multiple copies as required by the Project Manager: all plans; construction specifications; a construction budget; an itemized project cost estimate; copies of all environmental permits; a completed Categorical Exclusion (CE) Checklist required to determine the project's compliance with federal environmental laws and regulations; etc. The design stage of a project will be coordinated as described in the *MassHighway Design Manual, 1997 Metric Edition*. Also, see Section 4.1 of this Guide for further discussion of the design process.

Step 4. MassHighway reviews all information submitted to determine compliance with appropriate design standards and compliance with any applicable laws, rules, or regulations. Projects that are found to comply are then submitted to the Federal Highway Administration for funding approval. These submissions occur each quarter of the federal fiscal year (October 1 – September 30).

The Federal Highway Administration may require any of the following documents or verifications depending upon their applicability to the project stage for which funding is sought:

- List of Department of Environmental Protection Hazardous Materials Sites
- Right of Way Certificate
- Certification that there are no substandard features within the project limits

- All required federal, state, and local permits
- Bridge work approval by MassHighway
- A scheduled advertising date
- A completed CE Checklist
- Funding programmed on Transportation Improvement Program (TIP)
- Evidence that a public hearing was held
- A detailed Scope of Work for the project
- A detailed project budget
- An itemized project cost estimate
- Certification that the project is designed in conformance with MassHighway and AASHTO standards.

Step 5. Upon approval by the Federal Highway Administration, federal funds are obligated, and MassHighway drafts an agreement and transmits it to the applicant for signature.

Step 6. When the signed agreement is returned, the agreement is submitted to the MassHighway Board of Commissioners for approval.

Step 7. After the Board of Commissioners approves the agreement, MassHighway issues a Notice To Proceed (NTP). **It is critical that applicants do not begin work prior to receiving the NTP. Any expenses incurred by the applicant prior to receiving an NTP cannot be reimbursed to the applicant.**

Upon issuance of a Notice To Proceed, applicants should be prepared to periodically pay project costs in advance of reimbursement. As a project progresses, the applicant may periodically submit documentation of costs incurred to the District Office for review. Upon approval, MassHighway will reimburse the applicant.

3.2 Implementation Procedure: Advertisement by MassHighway

Step 1. The applicant receives a letter of approval from the Secretary of Transportation.

Step 2. Shortly thereafter, the applicant receives a letter from the Director of the Bureau of Transportation Planning and Development informing the applicant of necessary steps to implement a project. At that point in time, the applicant is instructed to contact the Transportation Enhancement Program Engineer at MassHighway.

Step 3. The Transportation Enhancement Program Engineer will inform the applicant that MassHighway has elected to advertise the project. The Enhancement Program Engineer may notify the applicant to contact the appropriate MassHighway District Office to prepare the project for review by MassHighway's Project Review Committee (PRC).

It is important to keep in contact with the Enhancement Program Engineer during the PRC approval process. Once a Program Manager is assigned, he/she will then become the applicant's main contact throughout the remainder of the process.

Upon satisfactory review by the PRC, MassHighway notifies the applicant that a Project Manager has been assigned to the project. In turn, the Project Manager informs the applicant of the required submission of further information which may include:

- **Projects Involving Property Acquisition:** The applicant submits information about the property, appraisal(s), etc. Also, at this stage the applicant will be referred to a MassHighway Community Compliance Officer. The Compliance Officer will guide the applicant through MassHighway's Right of Way process. Depending upon the nature of the acquisition, applicants may be required to complete the Right of Way process before proceeding on to the next implementation steps, or the applicant may be allowed to proceed through the Right of Way process concurrently with other implementation steps. For more information on MassHighway's Right of Way process see Section 5.4.4.
- **Projects Involving Design Services:** The applicant submits a detailed project cost estimate, a detailed Scope of Work including a project design budget and schedule, etc.
- **Projects Involving Construction Services:** For a project in which design is complete and it is ready for construction or implementation, the applicant submits, in multiple copies as required by the Project Manager: all plans; construction specifications; a construction budget; an itemized project cost estimate; copies of all environmental permits; a completed Categorical Exclusion (CE) Checklist required to determine the project's compliance with federal environmental laws and regulations; etc.

Step 4. MassHighway reviews all information submitted to determine compliance with appropriate design standards and compliance with any applicable laws, rules, or regulations. Projects found to be in compliance are then submitted to the Federal Highway Administration for funding approval. This submission occurs each quarter of the federal fiscal year (October 1 – September 30).

The Federal Highway Administration may require any of the following documents depending upon their applicability to the project stage for which funding is sought.

- List of Department of Environmental Protection Hazardous Materials Sites
- Right of Way Certificate

- Certification that there are no substandard features within the project limits
- All required federal, state, and local permits
- Bridge work approval by MassHighway
- A scheduled advertising date
- A completed CE Checklist
- Funding programmed on TIP
- Evidence that a public hearing was held
- A detailed Scope of Work for the project
- A detailed project budget
- An itemized project cost estimate
- Certification that the project is designed in conformance with MassHighway and AASHTO standards.

Step 5. Upon approval by the Federal Highway Administration, federal funds are obligated, MassHighway advertises the project, and awards a contract.

4.0 Implementation Factors

Many factors must be considered in preparing a project for implementation. This section discusses some of the major factors affecting a project's ability to be readily implemented. Applicants are strongly advised to review these factors during project development to assure the project is ready to proceed to its next phase after approval. Each Regional Planning Agency and the Enhancement Steering Committee member should review these factors when determining whether a project is well prepared for implementation.

Some projects forwarded for implementation may contain components that are inconsistent with the criteria outlined in the program guidelines, or as established by the Federal Highway Administration, the Executive Office of Transportation and Construction, or MassHighway. Where ineligible components are identified, they may be paid for using a separate funding source or eliminated from the project's scope of work.

All enhancement projects must comply with applicable design standards, and all federal, state, and local environmental, historical, and cultural regulations to be eligible to receive federal and state funding.

4.1 The Design Process

Before any project is developed into an enhancement proposal, the applicant should have completed the project-planning stage. The project-planning stage is the first stage in the design process.

Where a project requiring design involves a property purchase or the need to secure a temporary or permanent easement, the applicant should contact a MassHighway Community Compliance Officer. The MassHighway Community Compliance Officer

can advise the applicant on the appropriate actions needed to resolve acquisition issues. The Enhancement Steering Committee will not consider a project ready for design unless evidence is provided that all property acquisition issues, if any, have been or will be resolved in time for construction.

The MassHighway design process is outlined in detail in the *MassHighway Design Manual, 1997 Metric Edition*. The following is a brief outline of the major phases in the design process taken, in part, from the *Design Manual*. Applicants wishing to know more about the design process should consult the *Design Manual*.

There are four major stages in the MassHighway design process: planning; project development and the 25% design stage; the 75% design stage; and the 100% design stage. Each of these steps represents an important milestone in the design process and it is important they be followed in sequence, since each phase builds upon the preceding phase.

Planning: Before a project moves into design, the parameters and feasibility of the project should have been determined, reasonable alternatives to the project should have been considered, and the project to be designed should be the applicant's preferred alternative. Sound planning also involves the provision of meaningful public involvement. Careful project planning helps to avoid unnecessary delays and unforeseen expense during a project's design and construction. All enhancement proposals must have their planning stage complete before an application for enhancement funding is submitted.

Project Development and 25% Design: In this stage, basic design parameters are established, and public concerns and environmental impacts are identified. This may include, but is not limited to: performing geodetic surveying to establish the limits of work; identification and mapping of site features and environmentally sensitive areas; drafting preliminary grading plans; determining applicability of federal, state and local environmental laws and regulations; filing an Environmental Notification Form where applicable; and beginning interagency cooperation, where appropriate.

75% Design: This stage of the design process builds upon the preliminary information provided by the 25% Design stage. More detailed plans and specifications are developed during the 75% design stage. Any permits or clearances required to implement a project are typically initiated during this stage.

100% Design: This is the final stage of the design process in which plans, specifications, cost estimates, utility agreements, traffic management plans, and other design elements are finalized. All environmental and other permits should have been obtained, with plans revised to comply with permit requirements, if necessary.

4.2 Other Design Process Factors

Applicants should be aware of the following factors prior to commencing design.

4.2.1 Eligible Design Costs

Design and engineering costs eligible for reimbursement must be outlined in the contract or agreement, as appropriate, between MassHighway and the project applicant. These costs may include professional services and direct expenses for travel, printing, public hearings/meetings, the consultant's audited overhead rate and a profit margin that is consistent with the practices currently in use by MassHighway's Consultant Contract Unit.

4.2.2 Ineligible Design Costs

Administrative costs incurred by the project applicant are not eligible for reimbursement.

4.2.3 Designer Qualifications

The applicant must select a consultant from MassHighway's pre-qualified consultant list, unless determined otherwise.

MassHighway, through its Architects and Engineers Review Board (A&E Board), maintains an active list of over 300 design consultants that are pre-qualified to do work for MassHighway in approximately 30 different categories of civil engineering, structural engineering, environmental and architectural disciplines. A majority of these firms prepare designs for MassHighway and municipalities on a regular basis. A project applicant who wishes to obtain a pre-qualified consultant list, or discuss the consultant pre-qualification process may contact MassHighway's A&E Board Secretary.

4.2.4 Consultant Selection

A competitive process must be used when selecting a consultant, architect, artist, or any other vendor to perform engineering and design related services. This process can be based on qualifications, price, or combination of the two as determined by the local authority's governing statutes.

When selecting a design consultant, the project applicant should become familiar with the firm's qualifications, experience with federally-aided projects, and performance history. These elements usually have a direct and substantial effect on the timing and efficiency of project implementation and the ability to design the project within budget.

The project applicant should consult with the appropriate legal staff (Town Counsel, Chief Legal Counsel, City Solicitor, etc.) prior to commencing the selection process, to ensure that the proper procedures are followed.

The project applicant may advertise and select a design consultant without MassHighway's consent. However, the applicant must obtain written approval by MassHighway prior to awarding the consultant a contract.

Applicants should keep comprehensive records of the consultant selection process, because MassHighway reserves the right to review all selection process documentation including the consultant's negotiated fee, scope of work, and budget.

Any questions concerning the consultant selection procurement process should contact MassHighway's Contracts and Agreements Manager.

4.3 The Construction Process

In order for any enhancement project to proceed to construction, the project design must be completed through the 100% Design Stage. Regardless of whether MassHighway or the applicant is to advertise a project, all enhancement projects requiring construction must go through the advertising, bid award, and contracting phases of construction.

Construction work includes labor, materials, supervision and traffic police directly related to the construction, rehabilitation, or restoration involved in an enhancement project.

4.3.1 Advertising, Awarding, and Contracting for Construction

In the case where the applicant is to advertise the project, all projects must be publicly bid in accordance with governing statutes, regulations, or guidelines as set forth by the public agency, authority, or commission that is taking responsibility for constructing the project.

An applicant may advertise for a contractor and open bids without the consent of MassHighway. However, an applicant may not award a construction contract without prior written approval by MassHighway.

MassHighway reserves the right to review all documentation relative to the competitive bidding process and the contractor's qualifications.

MassHighway reserves the right, at its sole discretion, to advertise the construction of any project receiving enhancement funding.

4.3.2 Construction Options

There are three ways in which construction may be implemented:

- Option 1. Qualified municipal personnel under the supervision of a qualified municipal engineer can perform the work. The contracting mechanism for this option is typically an agreement between the applicant and MassHighway.
- Option 2. A qualified contractor who has been competitively selected by the applicant can perform the work. The contracting mechanism for this option is a standard contract between the applicant and MassHighway. The applicant would then contract directly with the contractor.

- Option 3. A qualified contractor who has been competitively selected by MassHighway as part of its annual advertising program can perform the work. The contracting mechanism for this option is a standard construction contract between the contractor and MassHighway.

In all cases, qualified personnel at the discretion of MassHighway may perform construction supervision.

4.3.3 Pre-qualification of Contractors Required

For projects whose total construction cost is \$50,000 or more, certain classes of work require that the contractor be pre-qualified by MassHighway's Contractor Pre-qualification Committee. Contractors intending to submit a bid on a construction project involving work in these categories must be pre-qualified. Questions concerning pre-qualification for construction contractors or the classes of work covered are directed to MassHighway Construction Contracts and Pre-qualifications Administrator.

4.4 The Right of Way Process

Any enhancement project that seeks enhancement funds to purchase property (acquisition), obtain the temporary right to enter a property to perform work (temporary easement), or to obtain the permanent right to enter and use a property (permanent easement) must follow MassHighway's Right of Way process. Any property purchase or easement acquisition must prove to be an integral part of an enhancement project and be necessary for implementation.

Costs associated with appraisals, county/local registration or filing fees, legal fees, and title examinations are not eligible for reimbursement. However, these costs can be applied to the applicant's local share.

For all property acquired with enhancement funds, the applicant at the time of application must provide suitable verification that the property has been tested for, and does not contain, hazardous materials.

An applicant whose project involves any acquisition of a property right as described above (either temporary or permanent) must begin the Right of Way process by contacting a MassHighway Community Compliance Officer.

4.4.1 Appraisals and Certified Appraisers

MassHighway's Right of Way Bureau has compiled a list of approximately 150 certified appraisers located throughout the Commonwealth. A member on the most current issue of this list must prepare all certified appraisals for enhancement projects. Applicants should be aware that this list is updated periodically.

In all cases, appraisal submissions must comply with MassHighway standards and format for appraisals. Applicants must submit to MassHighway's Right of Way Bureau a minimum of two copies of each appraisal report.

All requests for funds **less than \$175,000** requires at least **one** certified appraisal. A Department Community Compliance Officer will be responsible for reviewing the appraisal and approving the maximum amount of reimbursement for the acquisition.

All requests for funds of **\$175,000 or more** require at least **two** certified appraisals. A Department Review Appraiser will perform the appraisal review. MassHighway may, at its discretion, forward the appraisals to the MassHighway Real Estate Review Board for approval of the maximum amount of reimbursement for the acquisition.

Applicants should note that appraisal values change over time, therefore the acquisition should be completed within six months of the date of the original appraisal to prevent the need for a new current appraisal.

4.4.2 Conformity with Regulations

Acquisitions must be done in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended (Title 42 U.S.C.). All property management issues are subject to the provisions of 49 CFR Parts 18 & 24, and 23 CFR Part 713.

4.4.3 Public Hearing/Meeting Required

The applicant is responsible for advertising and hosting a public hearing/meeting concerning the acquisition. It is important for the applicant to coordinate this event with a Community Compliance Officer whose attendance is required to represent MassHighway and explain the Right of Way process.

4.4.4 Notice To Proceed Required

No property may be acquired until a contract or agreement, as appropriate, has been executed between MassHighway and the applicant, and MassHighway has issued a Notice to Proceed to the applicant.

4.4.5 Right of Way Certificate

Once the Community Compliance Officer is satisfied that all Right of Way rights have been secured, a Right of Way Certificate will be issued.

4.5 Contact Information

MassHighway Engineering/Consultant Contracts

Guy Rezendes, Transportation Enhancement Program Engineer	(617) 973-7512
Thomas Donnelly, Transportation Enhancement Agreement Administrator	(617) 973-7511
MassHighway Consultant Contract Unit	(617) 973-7511

MassHighway Prequalification Consultant List	(617) 973-7525
MassHighway Architect and Engineer Board	(617) 973-7520

MassHighway Bureau of Transportation Planning and Development

Linda Walsh, Transportation Enhancement Program Coordinator	(617) 973-8052
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MassHighway Right Of Way Bureau

Anthony Lumenello, Community Compliance Officer (Districts 1, 2 & 3)	(617) 973-7966
Charles O'Brien, Community Compliance Officer (Districts 4 & 5)	(508) 824-6633